Engineer-in-Training (EIT)
Civil Engineer I
Civil Engineer II

General Information	
Classification Code:	TCHANL
Effective Date:	11/24/2021
Pay Grade:	C42-C44
FLSA Status:	Exempt

Position Summary

The Civil Engineer performs professional engineering work in alignment with requirements set forth by the State of Oregon Board of Examiners for Engineering and Land Surveying to ensure appropriate design and construction of City infrastructure relating to streets, traffic control, sanitary sewers, wastewater facilities, stormwater management, erosion control, and other aspects of public and private construction. Performs or assists in the technical and professional engineering work related to the review, design, inspection, investigation, maintenance and construction of City infrastructure, transportation, and municipal projects. Performs other duties of a similar level or nature.

Classification Characteristics

The Civil Engineer position falls under the Technical Analyst classification. Technical Analyst encompasses incumbents engaged in a wide range of professional and technical duties. They make process decisions and decide how to best achieve objectives in support of the City. Responsibilities will vary in accordance with assigned area of responsibility, but could include conducting special studies, analyses, and evaluation of issues; design, project management, reviewing plans and permit issues, and inspecting and implementing special projects.

Engineer In-Training – This is the entry-level of the Civil Engineer series and little evaluation, originality or ingenuity is required. Requires minimal professional experience and works under the general guidance and direction of a licensed Professional Engineer (PE). Work is routine and instructions are usually detailed. Knows and applies fundamental concepts, practices, and procedures of engineering to perform a task or sequence of tasks for conventional projects with few complex features. Works on small projects or portions of larger projects. This level does NOT affix professional engineering seal to construction drawings, studies, reports, and/or plans.

Civil Engineer I – Performs a variety of professional engineering work, at the beginning professional level, in design, planning, and construction of public works projects. Depending on area of assignment, may affix professional engineering seal to construction drawings, studies, reports, and/or plans of basic complexity. Manages small to moderate sized projects.

Civil Engineer II– Performs a more complicated or complex level of work. Possesses and applies a broad knowledge of principles, practices, and procedures of engineering to the completion of difficult assignments. May provide technical mentoring to lower-level staff. Assignments are broad in nature, generally requiring a high level of ingenuity and originality; has appreciable latitude for un-reviewed actions and/or decisions; evaluates progress and results and recommends changes in procedures. Independently evaluates, selects, and adapts standard techniques, procedures, and criteria. Depending on area of assignment, may affix professional engineering seal to construction drawings, studies, reports, and/or plans. Depending on area of assignment, may have the authority to assign work activities to city staff. Works on multiple projects of moderate size or portions of major ones.

After an employee has been employed in this flexibly staffed classification for a period of at least one (1) year, the employee may be advanced to the next level subject to the following:
- The employee meets the minimum qualifications for the next level.
- The employee is performing the higher-level duties at an acceptable level.

Essential Duties	
The duties listed below are a typical sample; position assignments may vary.	
1	Prepares and checks engineering plans, specifications, reports, and studies. May coordinate with consultants to ensure compatibility with standards, specifications, and policies.
2	Prepares accurate cost estimates, budgets, material lists, project schedules, and personnel resources needed for project completion/program accomplishment. Provide explanation for variances. Review and approve payments to contractors and consultants.
3	Analyzes work papers, reports, special projects; interprets technical and numerical information; observes and solves problems involving operational situations and technical policies and procedures.
4	Designs and manages projects. Provides management services for construction and engineering projects, including contract administration, drafting specifications, assembling contract documents, evaluating and determining project issues and scope, overseeing pre-construction meetings, facilitating and leading planning meetings, preparing project cost estimates, interpreting contracts, and ensuring compliance.
5	Effectively uses word processing, database, spreadsheet, design, and computer aided drafting software, permitting software, and electronic plan review software as appropriate, for written communication, technical evaluations, project management, and engineering design.
6	Prepares and delivers presentations to City Council and other public officials related to the area of responsibility.
7	Ensures compliance with Federal, State and local laws, regulations, codes, and/or standards.
8	Conduct, coordinate, and/or facilitate all activities associated with assigned projects including field inspections, site visits, and preparing narrative reports. Ensures completeness prior to the bidding process, contract approval, and/or permit issuance.
9	Demonstrates understanding and exercises good judgment in the preparation and evaluation of technical and/or financial information and alternatives related to municipal and utility program and project development including management, planning, design, design review, surveying, permit issuance, and construction. Completes investigations, studies, and reports as required.
10	Represents the City of Springfield through excellence in internal and external customer service. Maintains a positive customer service demeanor, and delivers service in a prompt, respectful and patient manner with creative problem resolutions. Maintains a positive attitude promoting a positive working environment.
11	Performs other duties of a similar nature or level.

Functional Specific Responsibilities

Land Development – Provides review of private and public development proposals, infrastructure plans and engineered designs to ensure compatibility with public infrastructure and that site designs are consistent with City adopted codes and guidelines. Assures that new development and infrastructure facilities are designed and constructed in accordance with City master plans, state and local codes and construction standards. Participates on project team for full updates to specifications and guiding documents for compliance with laws and regulations.

Capital Improvement – Performs a variety of professional engineering work in design, planning, cost estimating, project management, and construction of public works projects in support of the City's wastewater program, stormwater program and transportation program. Administers City and outside agency contracts; designs, manages and/or oversees capital projects; manages and is actively involved in the public outreach process of assigned projects; and manages project budgets. Presents project updates to management and City Council. May be responsible for stamping/signing drawings and writing specifications as the registered Professional Engineer for engineering projects at the Civil Engineer I and II levels.

Traffic – Performs a variety of professional engineering work in design, planning, and construction of public works projects. Review of traffic studies and privately engineered plans; prepares land-use findings and

Functional Specific Responsibilities

conditions; engages community member and applicants resolving conflicts and represents the City in these activities and supports grant preparations reviews traffic studies and privately engineered plans; prepares land-use findings and conditions; engages community members and applicants to resolve conflicts; prepares grants. May be responsible for stamping/signing drawings and writing specifications as the registered Professional Engineer for engineering projects at the Civil Engineer I and II levels.

Environmental - Performs a variety of professional engineering work in planning, cost estimating, design, construction, and project management in support of the MWMC's regional wastewater program and Capital Improvement Program. Administers MWMC and outside agency contracts; designs, manages and/or oversees capital projects; is actively involved in the public outreach of assigned projects, and manages project expenses/budgets. Regularly presents project updates to management and the MWMC's Commission.

Qualifications

Minimum Qualifications:

- Engineer In-Training (C42): Bachelor's degree in civil engineering from an accredited college or university and one (1) year of experience working in civil engineering design, construction, surveying, inspections, or a related field.
- Civil Engineer I (C43): Bachelor's degree in civil engineering from an accredited college or university and four (4) years of experience working in civil engineering design, construction, surveying, inspections, or a related field.
- Civil Engineer II (C44): Bachelor's degree in civil engineering from an accredited college or university and seven (7) years of experience working in civil engineering design, construction, surveying, inspections, or a related field.

Licensing/Certifications:

- Engineer In-Training: Engineer-In-Training requires registration as an Engineer-in Training in the State of Oregon; or registration as an Engineer-in-Training in a reciprocal state and the ability to obtain Oregon registration within six (6) months of appointment.
- Civil Engineer I and II: Registration as a Professional Civil Engineer (PE) in the State of Oregon or registered as a PE in a reciprocal state with the ability to obtain Oregon registration within twelve (12) months of appointment.
- Valid Driver's License in the State of Oregon.

Technology Skills:

- Calendar and scheduling software — Scheduling software
- Computer aided design CAD software — Autodesk AutoCAD Civil 3D; Autodesk Revit
- Data base user interface and query software — Data entry software; Microsoft Access
- Document management software — Adobe Systems, Laserfiche
- Electronic mail software — Email software; Microsoft Exchange; Microsoft Outlook
- Internet browser software — Microsoft Internet Explorer; Web browser software
- Office suite software —Microsoft Office
- Presentation software — Microsoft PowerPoint
- Project management software — Cost estimating software; Microsoft Project
- Spreadsheet software — Microsoft Excel
- Word processing software — Microsoft Word

Knowledge Required:

- Design — Knowledge of design techniques, tools, and principles involved in production of technical plans, drawings, and models.
- Engineering and Technology — Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

Qualifications

- Construction Processes — Knowledge of construction processes, quality control, costs, and other techniques for construction.
- Construction — Knowledge of materials and methods involved in the construction of City structures such as roads, sanitary and stormwater sewers, stormwater facilities.
- Mathematics — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
- English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Administration and Management — Knowledge of business and management principles involved in strategic planning, resource allocation, leadership technique, production methods, and coordination of people and resources.
- Customer and Personal Service — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- Law and Government — Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.
- Public Safety and Security — Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.
- Computers – Knowledge of computer software applications.
- Physics — Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid and material dynamics.

Skills:

- Public Speaking- Possessing the skill of providing technical information to a broad public audience in a meeting setting.
- Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Complex Problem Solving — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Mathematics — Using mathematics to solve problems.
- Reading Comprehension — Understanding written sentences and paragraphs in work related documents.
- Respectful Speaking — Talking to others to convey information effectively in a respectful manner.
- Science — Using scientific rules and methods to solve problems.
- Systems Analysis — Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- Time Management — Managing one's own time and the time of others.
- Operations Analysis — Analyzing needs and product requirements to create a design.
- Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Active Learning — Understanding the implications of new information for both current and future problem-solving and decision-making.
- Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
- Writing — Communicating effectively in writing as appropriate for the needs of the audience.
- Coordination — Adjusting actions in relation to others' actions.
- Systems Evaluation — Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.
- Instructing — Teaching others how to do something.
- Management of Personnel Resources — Motivating, developing, and directing people as they work, identifying the best people for the job.

Qualifications

- Negotiation — Bringing others together and trying to reconcile differences.
- Persuasion — Persuading others to change their minds or behavior.
- Service Orientation — Actively looking for ways to help people.
- Social Perceptiveness — Being aware of others' reactions and understanding why they react as they do.
- Learning Strategies — Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.

Abilities:

- Deductive Reasoning — The ability to apply general rules to specific problems to produce answers that make sense.
- Inductive Reasoning — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Oral Comprehension — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression — The ability to communicate information and ideas in speaking so others will understand.
- Problem Sensitivity — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Written Comprehension — The ability to read and understand information and ideas presented in writing.
- Written Expression — The ability to communicate information and ideas in writing so others will understand.
- Information Ordering — The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Mathematical Reasoning — The ability to choose the right mathematical methods or formulas to solve a problem.
- Category Flexibility — The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Fluency of Ideas — The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
- Near Vision — The ability to see details at close range (within a few feet of the observer).
- Number Facility — The ability to add, subtract, multiply, or divide quickly and correctly.
- Visualization — The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Far Vision — The ability to see details at a distance.
- Flexibility of Closure — The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Speech Clarity — The ability to speak clearly so others can understand you.
- Speech Recognition — The ability to identify and understand the speech of another person.
- Originality — The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Selective Attention — The ability to concentrate on a task over a period of time without being distracted.

Physical Requirements

Key	None 0% (0 hrs.)	Seldom 1-10% (Up to 1 hrs.)	Occasionally 11-35% (Up to 3 hrs.)	Frequently 36-75% (3-6 hrs.)	Continuous 76-100% (6+ hrs./day)

Physical Requirements											
	0%	1-10%	11-35%	36-75%	76-100%		0%	1-10%	11-35%	36-75%	76-100%
BODY POSITIONS						**PUSH/PULL**					
Standing			X			0-10 lbs.			X		
Sitting				X		11-20 lbs.		X			
Walking – Even Surface			X			21-50 lbs.	X				
Walking – Uneven Surface			X			51-75 lbs.	X				
Kneeling		X				76-100 lbs.	X				
MOVEMENTS						**ENVIRONMENTAL HAZARDS**					
Bending/Stooping		X				Indoors					X
Twisting	X					Outdoors		X			
Crawling	X					Dust		X			
Squatting/Crouching		X				Fumes/Odors/Gasses	X				
Balancing	X					Chemical Agents	X				
Reach – Overhead	X					Biological Agents	X				
Reach – Forward		X				Noise – Low		X			
Reach – Backward	X					Noise – Moderate		X			
Climbing – stairs		X				Noise – High		X			
Climbing - ladder	X					Low Light	X				
USE OF HANDS						Heat		X			
Grasping – whole hand		X				Cold		X			
Grasping – pinch grip			X			Restricted workspace	X				
Fine manipulation/feeling			X			Vibration – whole body	X				
Keyboarding				X		Vibration - extremity	X				
LIFT/CARRY						**JOB SPECIFIC**					
0-10 lbs.			X			Driving – vehicle/equipment		X			
11-20 lbs.		X				Operate foot controls					
21-50 lbs.	X					Seeing					X
51-75 lbs.	X					Talking			X		
76-100 lbs.	X					Hearing			X		
						Extended work hours		X			

Classification History

Created: 2011.09
2012.03 – Modified
2017.11 – Revisions by HR
2020.10 – Revisions by HR
2021.11 – Revised and reformatted

I have reviewed the job description.

Employee: Name_____ Signature _____ Date _____